



**National Aeronautics
and Space Administration**

**December 24, 1997
NRA 97-OSS-16**

Research Announcement

Mars Instrument Development Program

Letters of Intent Due:
Proposals Due:

**January 23, 1998
March 23, 1998**

Mars Instrument Development Program

NASA Research Announcement (NRA)
Soliciting
Proposals for Basic Research
Proposals Due March 23, 1998

NRA 97-OSS-16
Issued: December 24, 1997

Office of Space Science
National Aeronautics and Space Administration
Washington, DC 20546-0001

Mars Instrument Development Program

This NASA Research Announcement (NRA) solicits new proposals for research and development work to take promising instruments, relevant to the surface science goals of the Mars 2003 and 2005 missions, from the breadboard or lab-demonstration phase to a point where they can be tested in systems-level simulated rover operations or under similar realistic (e.g., environmental) conditions.

Participation in this program is open to all categories of domestic and non-U.S. organizations, industry, educational institutions, other nonprofit organizations, NASA centers, and other Government agencies. The proposals that are received by the deadline, noted below, will be evaluated by scientific peer reviews, and selections are anticipated in February 1998. Further details relevant to this program are included in the appendices to this Announcement. The complete text of the NRA and appendices are available through the World Wide Web at the URL address <<http://www.hq.nasa.gov/office/oss/>>, by opening "Research Opportunities" from the menu on that page.

Appendix A provides technical and program information in the general area in which proposals are sought, plus amendatory guidance to Appendix B, applicable only to this NRA. Appendix B contains the basic guidance needed for preparation of solicited proposals in response to an NRA. Appendix C provides the forms required for proposal submission. The following items, likewise, apply only to this Announcement:

Identifier:	NRA 97-OSS-16
Obtain additional information from:	Mr. David Lavery Solar System Exploration Technology Program NRA 97-OSS-16 Code SM NASA Headquarters Washington, DC 20546-0001 Phone (202) 358- 4684 Fax (202) 358-2697 E-mail: dave.lavery@hq.nasa.gov
Notice of Intent (NOI) Due:	January 23, 1998
Submit NOI to:	World Wide Web URL < http://131.182.116.166 >
Required copies of proposals:	10 copies plus signed original
Proposal Deadline:	March 23, 1998
Mail Proposals To:	Mars Instrument Development Program Jorge Scientific Corporation Suite 700 400 Virginia Avenue, SW Washington, DC 20024 Phone (202) 554-2775
Selecting Official	Director Advanced Technology and Missions Studies Division Office of Space Science

Your interest and cooperation in participating in this effort are appreciated.

Carl B. Pilcher
Acting Science Program Director
Solar System Exploration

Appendix A:	Description of Program
Appendix B:	Instructions for Responding to NASA Research Announcements
Appendix C:	Standard Forms: Proposal Cover Page Proposal Summary Budget Summary & Detailed Instructions Current and Pending Support Certification Regarding Debarment, Suspension, and Other Responsibility Matters Certification Regarding Drug-Free Workplace Requirements Certification Regarding Lobbying
Appendix D:	Office of Space Science Education/Public Outreach

MARS INSTRUMENT DEVELOPMENT PROGRAM

I. PROGRAM SCOPE

NASA has accepted the considerable challenge of returning samples from the surface of Mars on a mission to be launched in 2005 (referred to here as the Mars '05 mission). Prior to this, there will be two other opportunities to land on Mars and carry out preliminary site traverses, rock compositional/mineralogical characterization, and sample caching. The expectation is that these Mars '01 and Mars '03 missions will deploy long-duration rovers with instrument suites capable of determining the bulk composition, and potentially the mineralogy, of rocks and soil. These rovers may also break off or core out portions of candidate sample return specimens, store them, and deliver them to a caching site for retrieval by the Mars '05 mission. The overall goals of this Mars program must be achieved with relatively low mission risk and tightly constrained costs. Information on NASA Mars programs may be obtained from the World-Wide Web at URL

<http://eis.jpl.nasa.gov/ssematerial/mars_exploration_programs/index.html>.

Additional background on rover testing and deployment may be obtained at URL

<<http://robotics.jpl.nasa.gov/tasks/scirover/homepage.html>>.

Such ambitious mission plans require that many new instruments be brought to a flight-ready status within a short time span and at low cost. While NASA's Planetary Instrument Definition and Development Program (PIDDP) funds research to develop breadboard versions of new instruments, there is a crucial gap in support between this demonstration phase and actual flight hardware construction. Such a gap increases the mission risk of any proposed new instrument. Therefore, this NRA solicits new proposals for research and development work to take promising instruments for Mars surface characterization from the breadboard or laboratory-demonstration phase to a point where they can be tested in systems-level simulated rover operations or under similar realistic (e.g., environmental) conditions.

The instruments to be supported under this NRA must specifically target issues related to characterizing the Martian surface from a lander or rover, conducting detailed studies of specific samples, or mechanically acquiring (grabbing, coring, chipping) these samples for analysis and/or caching. For such applications, low volume, low mass, and low power consumption are a necessity, so miniaturization of instruments and their supporting electronics is of great importance. This NRA will support instrument efforts that address the science needs of the Mars '03 and Mars '05 missions; instruments for the Mars '01 mission have already been selected and will not be supported by this NRA. Proposed instruments are not required to demonstrate past PIDDP or other support, but must have completed the breadboard/proof-of-concept phase.

This Research Announcement is expected to be issued annually, with its focus dependent upon current NASA mission requirements and goals.

II. SCIENTIFIC FOCUS OF INSTRUMENTS

Proposals for instrument development that address the following science objectives of the Mars '03 and '05 missions will be considered for funding under this NRA:

(a) High-resolution imaging from a lander or rover, which may include stereo imaging systems, multispectral cameras, imaging spectrometers, or "hand-lens" microscopes.

(b) Surface soil and rock bulk composition and mineralogy, which include, but are not limited to, point spectrometers, Alpha-Proton X-ray Spectrometer or X-ray diffraction instruments, thermal evolved gas sensors, mass spectrometers, Raman spectrometers, and Mossbauer spectrometers.

(c) Surface radiometric age dating.

(d) Subsurface ice and water characterization, the techniques for which may include microwave probes, magnetic resonance sensors, resistivity experiments, or other geophysical methods.

(e) Exobiology assessment of surface materials, which include, but are not limited to, gas chromatography experiments, mass spectrometers, amino acid detectors, and Raman spectrometers.

(f) Sample preparation and retrieval, which includes devices to be mounted at the end of a rover-mounted or lander-mounted manipulator that drill, core, or chip a rock sample to expose interior layers for study or caching. These robotic manipulators will be supplied by the Jet Propulsion Laboratory (JPL), so no manipulator development will be funded under this NRA.

Proposals that seek to combine existing instruments into architectures that lead to an overall reduction in size, mass, or power may also be considered for funding.

The proposed instrument should be at a moderately advanced (“breadboard”) stage of development, consistent with current or past Planetary Instrument Definition and Development Program (PIDDP) involvement, Sensor and Instruments Technology Development Program support, Small Business Innovative Research (SBIR) funding, or other research and development support.

The instruments to be developed under this program may be tested using NASA/Jet Propulsion Laboratory rover platforms such as Rocky 7, which has carried out several demonstration traverses in the Mojave Desert. Accommodation of instruments with the field tests, and the funding of these tests, will be arranged by the NASA Program Manager as each one reaches the appropriate level of readiness. It is emphasized that any instrument development proposed in response to this NRA must be justified by a brief but complete discussion of the type(s) of science investigations that could be carried out should the instrument be eventually selected for flight. Such scientific justification is the responsibility of the proposer, and not for inference on the part of NASA or the peer reviewers of the submitted proposals.

III. EDUCATION/PUBLIC OUTREACH

In accord with recently established Office of Space Science (OSS) policies, proposers to all OSS research programs are now strongly encouraged to include an Education/Public Outreach (E/PO) component as part of their scientific research proposal. Note that an E/PO activity will be funded only in conjunction with a “parent” research proposal. For this Mars Instrument Development Program, up to the order of \$10K per year may be proposed, although even a larger budget will be considered based on the merits of the proposed E/PO activity. The primary selection criterion for the proposed “parent” research investigation will continue to be that described in the NRA. However, the quality of a proposed E/PO component will be used as an additional factor to discriminate between proposals having otherwise equal scientific/technical and programmatic merits. See Appendix D of this NRA for additional details on submission guidelines and evaluation criteria.

IV. PROPOSAL EVALUATION CRITERIA

All proposals received by the deadline for this NRA will be screened for compliance with the provisions contained herein. All compliant proposals will then be subjected to scientific and technical review by a panel of the proposer’s peers, which may also be supplemented by mail-in

reviews. The results of the summary reviews provided by the panel will be combined with programmatic evaluations provided by NASA personnel, who will recommend a final selection to the Selecting Official identified in the prefatory summary section of this NRA.

Proposals to this NRA will be evaluated on the basis of their (1) Intrinsic Merit, (2) Relevance, (3) Cost, and (4) Educational/Public Outreach component (see Appendix D). Intrinsic merit is weighted more heavily than relevance and cost, which have approximately equal weight. Evaluation of Criteria 4 may be used as an additional factor in selecting among otherwise equal proposals.

Criteria 1. Intrinsic Merit Includes:

- Overall scientific and technical merit. The proposer must show that this work, if funded, will address significant technological challenges to the implementation of a given technique for Mars surface studies, and the potential of this instrument development for significant reductions in instrument size (typically less than 1000 cm³), mass (on the order of <1 kg), and power requirements (on the order of 5 W or less).
- Overall standing among similar proposals available for evaluation and/or evaluation against the known state of the art.
- Qualifications, capabilities, and experience of the proposal's Principal Investigator and team, including the offeror's capabilities, related experience, facilities, techniques, or unique combinations of those that are integral factors for achieving the proposed objectives.

Criteria 2. Relevance to NASA objectives.

- A proposal must demonstrate that the instrument addresses key scientific questions related to the nature of the Martian surface, consistent with the needs of the Mars '03 and '05 missions detailed above.

Criteria 3. Cost.

- Evaluation of the cost of a proposed effort includes the relationship of the cost to available funds, as well as the realism and reasonableness of this cost.

Criteria 4. Education and Outreach.

- The quality of education and outreach plans will be judged against NASA standards described in Appendix D.

V. PROGRAM MANAGEMENT INFORMATION

Full proposals are sought for new studies beginning in FY 1998. Proposals may specify periods of performance of up to four years. It is expected that there will be approximately \$3.5 million per year available for proposals, and that 6-10 studies will be supported with these funds. Funding for the investigations selected will begin in FY 1998.

Overall program management, peer review, and proposal selection will be carried out by NASA Headquarters. To expedite FY 1998 funding of the selected investigations, all funding awards will be implemented through the JPL contracts office. Quarterly progress reports will be required, and a final report is required at the termination of the period of performance.

VI. NOTICE OF INTENT TO PROPOSE

In order to better plan for peer review of the submitted investigations, all prospective proposers should submit a Notice of Intent (NOI) to propose by the deadline given in the covering summary letter of this NRA. This NOI should reference the alpha-numeric identifier and formal name of this NRA, and to the extent known by the NOI deadline date, provide the names and institutions of Principal Investigator (PI) and Co-Investigators (Co-I's), a descriptive title of the proposal, and a brief summary of the research that is expected to be proposed. A NOI is to be submitted electronically by entering the requested information on the World Wide Web site at URL <<http://131.182.116.166>>. Proposers without access to the Web or who experience difficulty in using this site may contact Ms. Deb Tripp (E-mail: deb.tripp@hq.nasa.gov) for assistance.

VII. SUPPLEMENTARY PROPOSAL PREPARATION GUIDANCE

1. Prefatory Materials

The Transmittal Letter or Prefatory Material section of Appendix B is modified, as follows:

The first four pages of the proposal after the transmittal letter should be the following prefatory materials (see Appendix C): a Cover Page that must be signed by an official of the principal proposing institution empowered to commit the institution to carry out the proposed work if the proposal is selected, a Proposal Summary that describes the proposed activity, a summary of current and pending research support, and a Budget Summary for the entire proposed period of performance as well as for each year of the proposed activity. Note that the Budget Summaries are not a replacement for the detailed budget, which may be submitted in the format of proposing institution.

All proposals must have a Cover Page and Proposal Summary that together contain certain key, required information and that is to be submitted electronically through the forms found at the World Wide Web site <<http://131.182.116.166>>; see also Appendix C for an example of the information that will be expected on these forms. Proposers without access to the Web or who experience difficulty in using this Web format should contact Deb Tripp (E-mail: deb.tripp@hq.nasa.gov) for assistance. A hard copy printout of the Web submission of the Cover Page must be used to secure the required original PI and institutional signatures, which then constitutes the first page of the submitted original proposal, as well as the required number of proposal copies. The printed version of this Cover Page, with original signatures, is also required for issuing an award, if the proposal is selected for funding.

The Proposal Summary constitutes the second page of all copies of the proposal. Note that it is NASA's intention that the PI name, institution, and Summary for all selected proposals will be posted in a publicly accessible data base. Therefore, the Proposal Summary should not contain any proprietary or confidential information that the PI wishes to protect from public disclosure.

Changes (such as whiteout or strikethrough) to the printed Cover Page or Proposal Summary are not permitted. Any changes needed to the information on these pages after their original electronic submission may be made only by editing the form on the Web by using the "Edit" option and the Proposal Number that was assigned when the Cover Page material was first submitted electronically. The proposer should then print out a corrected version for submission with the proposal.

Finally, note that receipt by NASA of the Cover Page through the Web is not sufficient to meet the deadline for proposal submission. The original proposal, with the original signed Cover Page and required number of copies of the proposal, must be received by the indicated due date.

2. Certification Forms

The following completed and signed certification forms, provided in Appendix C, must be attached to the proposal:

- Certification Regarding Debarment, Suspension, and Other Responsibility Matters;
- Certification Regarding Drug-Free Workplace Requirements; and
- Certification Regarding Lobbying (required for proposals requesting a cumulative amount of funding of \$100,000 or more).

3. Proposal Length

The Length section of Appendix B is revised as follows: The maximum length of each proposal is limited to 15 nonreduced, single spaced typewritten pages for the following subjects:

- the proposed research and development of the experiment hardware, including a work plan;
- the expected results;
- the relevance of proposed work to a possible investigation for a future mission to Mars;
- the roles of all key personnel in the proposed effort;
- the supporting facilities needed to carry out the proposed work that either exist or that are proposed to be purchased; and
- references to citations in the text.

Each side of a sheet of paper containing text or figures is considered a page. Use type font 10 point or larger, minimum 1-inch margins, and standard 8.5x11 inch paper (or standard A4 for non-U.S. proposals). Proposals are to be bound in a manner that allows easy disassembly for recycling (i.e., no plastic or rigid binders), and incorporate color plates or photographs only if absolutely necessary for the exposition of critical data. No material may be submitted on any form of electronic media, nor may the proposal refer to material on the World Wide Web for completeness.

4. Proposal Costing Details

NASA policy requires that, at a minimum, proposers must submit the Budget Summary form given in Appendix C, page C-5, filled out in accordance with the Instructions on page C-6. A Budget Summary is required for each year of a proposed multiple year proposal, as well as a cumulative Budget Summary for the entire proposed period of performance. In addition to this Summary form, the proposing institution may include their proposed budget in the format and style of their choice with no limit on the page count.

Special note for proposals from NASA Centers: By 2000, NASA is expected to be operating on the basis of full cost accounting. In any event, NASA Center proposals should use the accounting practices that are specified at the time proposals are due.

VIII. GUIDELINES FOR FOREIGN PARTICIPATION

NASA welcomes proposals from outside the U.S. However, investigators working outside the U.S. are not eligible for funding from NASA. Therefore, proposals from non-U.S. entities should not include a cost plan. Proposals from outside the U.S. and U.S. proposals that include non-U.S. participation, must be endorsed by the respective government agency or funding/sponsoring institution in that country from which the non-U. S. participant is proposing. Such endorsement should indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

In addition to sending the required number of copies of the proposals to the designated address, one copy of the proposal, along with a Letter of Endorsement from the sponsoring non-U.S. agency, must be forwarded to:

Ms. Bettye Jones
(NRA 97-OSS-16)
Space Science and Aeronautics Division
Code IS
NASA Headquarters
Washington, DC 20546-0001
USA

All proposals must be typewritten in English. All non-U.S. proposals will undergo the same evaluation and selection process as those originating in the U.S. All proposals must be received before the established closing date; those received after the closing date will be held for the next proposal cycle. Sponsoring non-U.S. agencies may, in exceptional situations, forward a proposal without endorsement to the above address if endorsement is not possible before the announced closing date. In such cases, however, NASA's Space Science and Aeronautics Division should be advised when a decision on endorsement can be expected.

Successful and unsuccessful proposers will be contacted directly by the NASA Advanced Technology and Mission Studies Division. Copies of these letters will be sent to the sponsoring government agency. Should a non-U.S. proposal or a U.S. proposal with non-U.S. participation be selected, NASA's Space Science and Aeronautics Division will arrange with the non-U.S. sponsoring agency for the proposed participation on a no-exchange-of-funds basis, in which NASA and the non-U.S. sponsoring agency will each bear the cost of discharging their respective responsibilities. Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

1. a letter of notification by NASA; and
2. an exchange of letters between NASA and the sponsoring governmental agency,
or
3. a formal Agency-to-Agency Memorandum of Understanding (MOU)

**INSTRUCTIONS FOR RESPONDING TO
NASA RESEARCH ANNOUNCEMENTS**

Part 1852.235-72

NASA Federal Acquisition Regulations (FAR) Supplement (NFS)
Version 89.90, Effective March 11, 1997.

Accessible

<<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>>,
open 'Part 1852.228 to 1852.241' from menu.

(a). General.

(1) Proposals received in response to a NASA Research Announcement (NRA) will be used only for evaluation purposes. NASA does not allow a proposal, the contents of which are not available without restriction from another source, or any unique ideas submitted in response to an NRA to be used as the basis of a solicitation or in negotiation with other organizations, nor is a preaward synopsis published for individual proposals.

(2) A solicited proposal that results in a NASA award becomes part of the record of that transaction and may be available to the public on specific request; however, information or material that NASA and the awardee mutually agree to be of a privileged nature will be held in confidence to the extent permitted by law, including the Freedom of Information Act.

(3) NRA's contain programmatic information and certain requirements which apply only to proposals prepared in response to that particular announcement. These instructions contain the general proposal preparation information which applies to responses to all NRA's.

(4) A contract, grant, cooperative agreement, or other agreement may be used to accomplish an effort funded in response to an NRA. NASA will determine the appropriate instrument. Contracts resulting from NRA's are subject to the Federal Acquisition Regulation (FAR) and the NASA FAR Supplement (NFS). Any resultant grants or cooperative agreements will be awarded and administered in accordance with the NASA Grant and Cooperative Agreement Handbook (NPG 5800.1).

(5) NASA does not have mandatory forms or formats for responses to NRA's; however, it is requested that proposals conform to the guidelines in these instructions. NASA may accept proposals without discussion; hence, proposals should initially be as complete as possible and be submitted on the proposers' most favorable terms.

(6) To be considered for award, a submission must, at a minimum, present a specific project within the areas delineated by the NRA; contain sufficient technical and cost information to permit a meaningful evaluation; be signed by an official authorized to legally bind the submitting organization; not merely offer to perform standard services or to just provide computer facilities or services; and not significantly duplicate a more specific current or pending NASA solicitation.

(b). NRA-Specific Items. Several proposal submission items appear in the NRA itself: the unique NRA identifier, when to submit proposals, where to send proposals, number of copies required, and sources for more information. Items included in these instructions may be supplemented by the NRA.

(c). Proposal Content. The following information is needed to permit consideration in an objective manner. NRA's will generally specify topics for which additional information or greater detail is desirable. Each proposal copy shall contain all submitted material, including a copy of the transmittal letter if it contains substantive information.

(1) *Transmittal Letter or Prefatory Material*.

- (i) The legal name and address of the organization and specific division or campus identification, if part of a larger organization;
- (ii) A brief, scientifically valid project title intelligible to a scientifically literate reader and suitable for use in the public press;
- (iii) Type of organization: e.g., profit, nonprofit, educational, small business, minority, women-owned, etc.;
- (iv) Name and telephone number of the principal investigator and business personnel who may be contacted during evaluation or negotiation;
- (v) Identification of other organizations that are currently evaluating a proposal for the same efforts;
- (vi) Identification of the NRA, by number and title, to which the proposal is responding;
- (vii) Dollar amount requested, desired starting date, and duration of project;
- (viii) Date of submission; and
- (ix) Signature of a responsible official or authorized representative of the organization, or any other person authorized to legally bind the organization(unless the signature appears on the proposal itself).

(2) *Restriction on Use and Disclosure of Proposal Information*. Information contained in proposals is used for evaluation purposes only. Offerors or quoters should, in order to maximize protection of trade secrets or other information that is confidential or privileged, place the following Notice on the title page of the proposal and specify the information subject to the notice by inserting an appropriate identification in the Notice. In any event, information contained in proposals will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the Notice.

Notice**Restriction on Use and Disclosure of Proposal Information**

The information (data) contained in [insert page numbers or other identification] of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract(or other agreement) is awarded on the basis of this proposal, the Government shall have the right to use and disclose this information (data) to the extent provided in the contract(or other agreement). This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

(3) *Abstract.* Include a concise (200-300 word if not otherwise specified in the NRA) abstract describing the objective and the method of approach.

(4) *Project Description.*

(i) The main body of the proposal shall be a detailed statement of the work to be undertaken and should include objectives and expected significance, relation to the present state of knowledge, and relation to previous work done on the project and to related work in progress elsewhere. The statement should outline the plan of work, including the broad design of experiments to be undertaken and a description of experimental methods and procedures. The project description should address the evaluation factors in these instructions and any specific factors in the NRA. Any substantial collaboration with individuals not referred to in the budget or use of consultants should be described. Subcontracting significant portions of a research project is discouraged.

(ii) When it is expected that the effort will require more than one year, the proposal should cover the complete project to the extent that it can be reasonably anticipated. Principal emphasis should be on the first year of work, and the description should distinguish clearly between the first year's work and work planned for subsequent years.

(5) *Management Approach.* For large or complex efforts involving interactions among numerous individuals or other organizations, plans for distribution of responsibilities and arrangements for ensuring a coordinated effort should be described.

(6) *Personnel.* The principal investigator is responsible for supervision of the work and participates in the conduct of the research regardless of whether or not compensated under the award. A short biographical sketch of the principal investigator, a list of principal publications, and any exceptional qualifications should be included. Omit social security number and other personal items which do not merit consideration in evaluation of the proposal. Give similar biographical information on other senior professional personnel who will be directly associated with the project. Give the names and titles of any other scientists and technical personnel associated substantially with the project in an advisory capacity. Universities should list the approximate number of students or other assistants, together with

information as to their level of academic attainment. Any special industry-university cooperative arrangements should be described.

(7) *Facilities and Equipment.*

(i) Describe available facilities and major items of equipment especially adapted or suited to the proposed project, and any additional major equipment that will be required. Identify any Government-owned facilities, industrial plant equipment, or special tooling that are proposed for use. Include evidence of its availability and the cognizant Government points of contact.

(ii) Before requesting a major item of capital equipment, the proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative. Where such arrangements cannot be made, the proposal should so state. The need for items that typically can be used for research and non research purposes should be explained.

(8) *Proposed Costs.*

(i) Proposals should contain cost and technical parts in one volume: do not use separate "confidential" salary pages. As applicable, include separate cost estimates for salaries and wages, fringe benefits, equipment, expendable materials and supplies, services, domestic and foreign travel, ADP expenses, publication or page charges, consultants, subcontracts, other miscellaneous identifiable direct costs, and indirect costs. List salaries and wages in appropriate organizational categories (e.g., principal investigator, other scientific and engineering professionals, graduate students, research assistants, and technicians and other non-professional personnel). Estimate all staffing data in terms of staff-months or fractions of full-time.

(ii) Explanatory notes should accompany the cost proposal to provide identification and estimated cost of major capital equipment items to be acquired, purpose and estimated number and lengths of trips planned, basis for indirect cost computation (including date of most recent negotiation and cognizant agency), and clarification of other items in the cost proposal that are not self-evident. List estimated expenses as yearly requirements by major work phases.

(iii) Allowable costs are governed by FAR Part 31 and the NASA FAR Supplement Part 1831 (and OMB Circulars A-21 for educational institutions and A-122 for nonprofit organizations).

(9) *Security.* Proposals should not contain security classified material. If the research requires access to or may generate security classified information, the submitter will be required to comply with Government security regulations.

(10) *Current Support.* For other current projects being conducted by the principal investigator, provide title of project, sponsoring agency, and ending date.

(11) *Special Matters.*

(i) Include any required statements of environmental impact of the research, human subject or animal care provisions, conflict of interest, or on such other topics as may be required by the nature of the effort and current statutes, executive orders, or other current Government-wide guidelines.

(ii) Proposers should include a brief description of the organization, its facilities, and previous work experience in the field of the proposal. Identify the cognizant Government audit agency, inspection agency, and administrative contracting officer, when applicable.

(d). Renewal Proposals

(1) Renewal proposals for existing awards will be considered in the same manner as proposals for new endeavors. A renewal proposal should not repeat all of the information that was in the original proposal. The renewal proposal should refer to its predecessor, update the parts that are no longer current, and indicate what elements of the research are expected to be covered during the period for which support is desired. A description of any significant findings since the most recent progress report should be included. The renewal proposal should treat, in reasonable detail, the plans for the next period, contain a cost estimate, and otherwise adhere to these instructions.

(2) NASA may renew an effort either through amendment of an existing contract or by a new award.

(e). Length. Unless otherwise specified in the NRA, effort should be made to keep proposals as brief as possible, concentrating on substantive material. Few proposals need exceed 15-20 pages. Necessary detailed information, such as reprints, should be included as attachments. A complete set of attachments is necessary for each copy of the proposal. As proposals are not returned, avoid use of "one-of-a-kind" attachments.

(f). Joint Proposals.

(1) Where multiple organizations are involved, the proposal may be submitted by only one of them. It should clearly describe the role to be played by the other organizations and indicate the legal and managerial arrangements contemplated. In other instances, simultaneous submission of related proposals from each organization might be appropriate, in which case parallel awards would be made.

(2) Where a project of a cooperative nature with NASA is contemplated, describe the contributions expected from any participating NASA investigator and agency facilities or equipment which may be required. The proposal must be confined only to that which the proposing organization can commit itself. "Joint" proposals which specify the internal arrangements NASA will actually make are not acceptable as a means of establishing an agency commitment.

(g). Late Proposals. A proposal or modification received after the date or dates specified in an NRA may be considered if doing so is in the best interests of the Government.

(h). Withdrawal. Proposals may be withdrawn by the proposer at any time before award. Offerors are requested to notify NASA if the proposal is funded by another organization or of other changed circumstances which dictate termination of evaluation.

(i). Evaluation Factors

(1) Unless otherwise specified in the NRA, the principal elements (of approximately equal weight) considered in evaluating a proposal are its relevance to NASA's objectives, intrinsic merit, and cost.

(2) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission.

(3) Evaluation of its intrinsic merit includes the consideration of the following factors of equal importance:

(i) Overall scientific or technical merit of the proposal or unique and innovative methods, approaches, or concepts demonstrated by the proposal.

(ii) Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.

(iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in achieving the proposal objectives.

(iv) Overall standing among similar proposals and/or evaluation against the state-of-the-art.

(4) Evaluation of the cost of a proposed effort may include the realism and reasonableness of the proposed cost and available funds.

(j). Evaluation Techniques. Selection decisions will be made following peer and/or scientific review of the proposals. Several evaluation techniques are regularly used within NASA. In all cases, proposals are subject to scientific review by discipline specialists in the area of the proposal. Some proposals are reviewed entirely in-house, others are evaluated by a combination of in-house and selected external reviewers, while yet others are subject to the full external peer review technique (with due regard for conflict-of-interest and protection of proposal information), such as by mail or through assembled panels. The final decisions are made by a NASA selecting official. A proposal which is scientifically and programmatically meritorious, but not selected for award during its initial review, may be included in subsequent reviews unless the proposer requests otherwise.

(k). Selection for Award.

(1) When a proposal is not selected for award, the proposer will be notified. NASA will explain generally why the proposal was not selected. Proposers desiring additional information may contact the selecting official who will arrange a debriefing.

(2) When a proposal is selected for award, negotiation and award will be handled by the procurement office in the funding installation. The proposal is used as the basis for negotiation. The contracting officer may request certain business data and may forward a model award instrument and other information pertinent to negotiation.

(1). Cancellation of NRA. NASA reserves the right to make no awards under this NRA and to cancel this NRA. NASA assumes no liability for canceling the NRA or for anyone's failure to receive actual notice of cancellation.

(End of provision)

STANDARD FORMS

- o Proposal Cover Page (example only; see URL <<http://131.182.116.166>> for exact format)
- o Proposal Summary (example only; see URL <<http://131.182.116.166>> for exact format)
- o Budget Summary (one summary sheet for total proposed effort and one additional summary for each year of proposed effort)
- o Current and Pending Support
- o Certification Regarding Debarment, Suspension, and Other Responsibility Matters (signature is required for all proposals)
- o Certification Regarding Drug-Free Workplace Requirements (signature is required for all proposals)
- o Certification Regarding Lobbying, if total funding >\$100,000 (signature is required for all proposals)

REQUIRED CONTENTS OF STANDARD PROPOSAL

- Prefatory Materials

Cover Page (use printout of electronically submitted form)
Proposal Summary (use printout of electronically submitted form)
Budget Summary For Total Period Of Performance
Budget Summary For Each Year Of Proposed Effort
Current And Pending Support
Table Of Contents (optional)

- Main Body of Proposal (limited to 15 pages)

Research Objectives
Detailed Work Plan
Expected Results
Relevance Of Proposed Work
Role Of Pi, Co-I's, And Other Personnel
Supporting Facilities
References

- Resumes of Principal Investigator and Co-Investigators (one page each)

- Detailed Budgetary and Administrative Information (no page limit; in format of proposing institution's own choosing)

- Certifications (signed originals with signed original of proposal; U.S. Government agency proposers exempted):

Certification Regarding Drug Free Workplace
Certification Regarding Debarment, Suspension,
and Other Responsibility Matters
Certification Regarding Lobbying (required for proposals >\$100,000)

COVER PAGE

All proposals must have a Cover Page that contains certain key, required information and that is to be submitted electronically through the form found at the World Wide Web site <<http://131.182.116.166>>. See Section VII.1 for further details.

Changes (such as whiteout or strikethrough) to the printed Cover Page are not permitted. Any changes needed to the information on this page after its original electronic submission may be made only by editing the form on the Web by using the “Edit” option and the Proposal Number that was assigned when the material was first submitted electronically. The proposer should then print a corrected version for securing the necessary signatures for submission with the proposal.

Information typically required for Cover Page:

- Alpha-numeric identifier of NRA to which proposal will be submitted (e.g., 97-OSS-16).
- Full name of NASA Research Announcement (NRA).
- Name of Subprogram within NRA (if appropriate and applicable).
- Title and name (including initial as appropriate) of proposing Principal Investigator (PI).
- Full PI address, including Department/Division (as appropriate), name of employing institution, internal institutional Mail Code (if appropriate), street address, city, state, Zip Code, and country (if other than U.S.).
- For the hard copy submitted with the proposal, an original PI signature and date.
- PI telephone and facsimile numbers and E-mail address.
- Full, descriptive title of proposed investigation.
- Names, institutional affiliations, and E-mail addresses of all Co-Investigators (may only list as Co-I's those who are also identified by function in text of proposal).
- Institutional Endorsement, including name and title of the Authorizing Official, name of institution, and for the hard copy submitted with the proposal, an original signature and date.
- A summary of the proposed costs both by year and for the total proposed period of performance.

PROPOSAL SUMMARY

All proposals must include a Proposal Summary that contains certain key, required information and that is to be submitted electronically through the form found at the World Wide Web site <<http://131.182.116.166>>. See Section VII.1 for further details.

The Proposal Summary should include the following key information:

- A statement of the key, central objectives of the proposed research;
- An outline of methods proposed to accomplish the research objectives;
- The significance of the proposed work to NASA OSS interests;
- If the proposed is continuation of work performed under a previous NASA award, a list of articles published or in press derived from that award; and
- If the proposal contains a Education/Public Outreach component, a two or three sentence summary of the intended activity.

Changes (such as whiteout or strikethrough) to the printed Proposal Summary are not permitted. Any changes needed to the information on this page after its original electronic submission may be made only by editing the form on the Web by using the “Edit” option and the Proposal Number that was assigned when the material was first submitted electronically. The proposer should then print a corrected version for submission with the proposal.

Note: It is NASA’s intention that the PI name, institution and Proposal Summary for all selected proposals will be posted in a publicly accessible data base. Therefore, the Proposal Summary should not contain any proprietary or confidential information that the PI wishes to protect from public disclosure.

BUDGET SUMMARY

FROM: _____ **TO:** _____

(For Multiple Year Proposal: YEAR ____ OF ____)

Title Of Investigation:

Principal Investigator / Institution:

		<u> NASA USE ONLY </u>	
	A	B	C
1. <u>Direct Labor</u> (salaries, wages, and fringe benefits)	_____	_____	_____
2. <u>Other Direct Costs:</u>			
a. Subcontracts/grants	_____	_____	_____
b. Consultants	_____	_____	_____
c. Equipment	_____	_____	_____
d. Supplies	_____	_____	_____
e. Travel	_____	_____	_____
f. Other	_____	_____	_____
3. <u>Indirect Costs</u>	_____	_____	_____
4. <u>Other Applicable Costs:</u>			
a. Education/Public Outreach Activity	_____	_____	_____
b. Other	_____	_____	_____
5. <u>Subtotal</u> --Estimated Costs	_____	_____	_____
6. <u>Less Proposed Cost Sharing</u>	_____	_____	_____
7. <u>Carryover Funds</u> (if any)			
a. Anticipated amount	_____	_____	_____
b. Amount used to reduce budget	_____	_____	_____
8. <u>Total Estimated Costs</u>	_____	_____	XXXXXX
9. <u>APPROVED BUDGET</u>	XXXXXX	XXXXXX	_____

INSTRUCTIONS FOR BUDGET SUMMARY

- Provide a complete Budget Summary sheet for the entire proposed effort as well as a Summary sheet for each year of a multiple year proposal.
- Enter the proposed estimated costs in Column A (Columns B & C are for NASA use only).
- Provide detailed computations of estimates as attachments for each cost category with narratives as required to fully explain each Specific Cost as follows:
 1. Direct Labor (salaries, wages, and fringe benefits): Attachments should list the number and titles of personnel, amounts of time to be devoted to the grant, and rates of pay.
 2. Other Direct Costs:
 - a. Subcontracts: Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.
 - b. Consultants: Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay (not to exceed the equivalent of the daily rate for Level IV of the Executive Schedule, exclusive of expenses and indirect costs).
 - c. Equipment: List separately. Explain the need for items costing more than \$5,000. Describe basis for estimated cost. General purpose equipment such as personal computers, copiers, etc. is not allowable as a direct cost unless specifically approved by the Award Officer.
 - d. Supplies: Provide general categories of needed supplies, the method of acquisition, and the estimated cost.
 - e. Travel: List proposed trips individually and describe their purpose in relation to the grant. Also provide dates, destination, and number of travelers where known.
 - f. Other: Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate.
 3. Indirect Costs: Identify indirect cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. If unapproved rates are used, explain why, and include the computational basis for the indirect expense pool and corresponding allocation base for each rate.
 4. Other Applicable Costs: Enter total of other applicable costs (e.g., an Education/Public Outreach Proposal) with an itemized list explaining the need for each item and basis for the estimate.
 5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.
 6. Less Proposed Cost Sharing (if any): Enter any amount proposed. If cost sharing is based on specific cost items, identify each item and amount in an attachment.
 7. Carryover Funds (if any): Enter the amount of any funds expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget. Not applicable to 2nd-year and subsequent-year budgets submitted for award of a multiple year award.
 8. Total Estimated Costs: Enter the total after subtracting items 6 and 7b from item 5.

CURRENT AND PENDING RESEARCH SUPPORT

Provide the following information for all current research support from all sources being conducted or currently proposed by the Principal Investigator and key Co-Investigators:

- **Name of Investigator**

A. **Current Support** (i.e., in any of the period that will overlap with the proposed period of performance of this proposal):

- Project Title
- Sponsoring agency or institution (including point of contact)
- Period of performance and amount of award
- Commitment by Investigator in terms of Full Time Equivalent (FTE) Work Year

B. **Pending Support** (including continuations of multiple year awards and this current proposal):

- Project Title
- Sponsoring agency or institution (including point of contact)
- Proposed period of performance and amount of award
- Commitment by Investigator in terms of Full Time Equivalent (FTE) Work Year

C. Other institutions, including point of contact with telephone number, to which this proposal, or any part thereof, has been contemporaneously submitted for consideration of funding.

**Certification Regarding Drug-Free Workplace Requirements
Grantees Other Than Individuals**

This certification is required by the regulations implementing the Drug-Free Workplace Act of 1988. The regulations, published in the January 31, 1989 Federal Register, require certification by grantees, prior to award, that they will maintain a drug-free workplace. The certification set out below is a material representation of fact upon which reliance will be placed when the agency determines to award the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or government wide suspension or debarment (see 34 CFR Part 85, Sections 85.615 and 85.620).

This grantee certifies that it will provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing a drug-free awareness program to inform employees about -
 - The dangers of drug abuse in the workplace;
 - The grantee's policy of maintaining a drug-free workplace;
 - Any available drug counseling, rehabilitation, and employee assistance programs, and
 - The penalties that may be imposed upon employees for drug abuse violations in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will -
 - Abide by the terms of the statement; and
 - Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction;
- (e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction;
- (f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2) , with respect to any employee who is so convicted -
 - Taking appropriate personnel action against such an employee, up to and including termination; or
 - Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraph (a), (b), (c), (e), and (f).

Organization Name

PR/Award Number or Proposal Name

Name and Title of Authorized Representative

Signature

Date

**Certification Regarding
Debarment, Suspension, and Other Responsibility Matters
Primary Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization Name

PR/Award Number or Proposal Name

Name and Title of Authorized Representative

Signature

Date

Certification Regarding Lobbying

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000 for each such failure.

Organization Name

PR/Award Number or Proposal Name

Name and Title of Authorized Representative

Signature

Date

OFFICE OF SPACE SCIENCE POLICY FOR EDUCATION AND PUBLIC OUTREACH

The Office of Space Science (OSS) has developed a comprehensive approach for making education at all levels and the enhancement of public understanding of space science integral parts of all of its missions and programs. The two key documents that establish the basic policies and guide all OSS Education and Outreach activities are a strategic plan entitled *Partners in Education: A Strategy for Integrating Education and Public Outreach Into NASA's Space Science Programs* (March 1995), and an accompanying implementation plan entitled *Implementing the Office of Space Science (OSS) Education/Public Outreach Strategy* (1996). Both are available on the World Wide Web by selecting "Education and Outreach" from the menu on the OSS homepage at <<http://www.hq.nasa.gov/office/oss/>>, or from Dr. Jeffrey Rosendhal, Office of Space Science, Code S, NASA Headquarters, Washington, DC 20546-0001, USA.

The evaluation criteria against which a proposed E/PO activity will be judged are:

- The effectiveness and realism of the proposed education and/or public outreach program;
- The proposed establishment of effective, long-duration partnerships with institutions and/or personnel in the fields of educational and/or public outreach (note: a detailed discussion of the concept of education "partnerships" may be found in *Science Education Partnerships -- A Manual for Scientists and K-12 Teachers*, A. Sussman, ed., University of California Press (1993));
- The effective leveraging of existing and/or ancillary resources beyond those requested in the proposal (including, for example, the waiver of institutional overhead on the E/PO component by the proposing institution);
- The prospects for the proposed E/PO program to have a "multiplier effect" beyond the immediately involved personnel (e.g., the training of teachers or the broad dissemination of a planned E/PO product);
- The degree to which the proposed E/PO program benefits and promotes nationally recognized and endorsed efforts in education reform;
- The capability and commitment of the proposer to carry out the proposed E/PO program; and
- The realism and adequacy of the proposed budget (including any additional resources outside those requested from NASA).

Note that originality of the proposed effort is not a criterion; rather NASA OSS seeks assurance that an effective and appropriate E/PO activity of merit has been planned and that it will be executed. Additional guidance is contained in the OSS E/PO strategy and implementation plans referenced above.

To directly aid space science research personnel in identifying suitable education and/or outreach opportunities and to help develop partnerships between the space science and education/outreach communities, NASA OSS initiated in 1997 an “Education and Outreach Broker/Facilitator Program” (see NRA 97-OSS-07). The goal of this Broker/Facilitator program is to search out and establish high leverage opportunities, arrange alliances between educators and OSS-supported scientists, help scientists turn results from space science missions and programs into educationally appropriate products and/or services, and arrange for the results from such education and outreach activities to be disseminated regionally and/or nationally. Further information about this program and a list of the selected OSS Broker/Facilitators may also be accessed through the OSS homepage as described above.

The guidelines for the preparation and submission of the E/PO component of a research proposal submitted in response to an OSS NRA are as follows:

- The proposal should be a separately bound document that uses the E/PO Cover Page format at the end of this Appendix (this form may be copied for use, or a facsimile may be generated that contains the specified information as shown).
- The body of an E/PO proposal should be restricted to five pages or less, and begin with a brief summary of the proposed program followed by a description of its objectives and plan of activity. It should discuss the intended involvement of the Principal Investigator of the “parent” research proposal, as well as that of any additional personnel who would be responsible for the E/PO effort and/or the respective institutional responsibilities, if a partnership is proposed.
- The budget for the E/PO component should use the same Budget Summary form in Appendix C augmented by appropriate material to provide an understanding of the details of its anticipated costs. The total for any E/PO effort must also be included on line 4.a, “Education/Public Outreach Activity,” of the Budget Summary for its “parent” research proposal. The period of performance of any proposed E/PO activity must not exceed that of its “parent” research proposal.
- To allow maximum flexibility for developing the content of both the research, as well as an E/PO proposal, the E/PO component may be submitted in either of two ways:
 - Simultaneously with its “parent” research proposal by the proposal due date specified in the NRA; or
 - Up to 15 days after the NRA’s nominal due date for new research proposals.
- Regardless of when the E/PO component of a research proposal is submitted, the original E/PO proposal plus one copy are to be sent to the address listed in the NRA for delivery of research proposals, and six additional copies are to be sent directly to:

OSS NRA Education/Public Outreach Program
Space Science Support Office
Mail Stop 160
Langley Research Center
National Aeronautics and Space Administration
Hampton, VA 23681-0001

Every E/PO component of a research proposal will be evaluated by appropriate professional education and outreach personnel, and the results of these reviews will be transmitted to the cognizant NRA Program Scientist in time for use in developing the recommendation for

selection. Results of these E/PO reviews will be used to aid in discriminating between research proposals having otherwise equal science, technical, and programmatic merits. The OSS Selecting Official will specifically take into account the presence of a proposed E/PO component and its review rating when deciding on final selections and funding levels. As many E/PO proposals of merit as possible will be funded within the anticipated budget of about \$1.5M per Fiscal Year available for their support through OSS NRA's (i.e., the order of 150 to 200 tasks). Regardless of whether the "parent" research proposal is selected or not, reviews of any E/PO proposal will be conveyed to the proposer as part of any requested debriefing.

Attention is also called to the Initiative to Develop Education through Astronomy and Space Science (IDEAS) program administered by the Space Telescope Science Institute (STScI) on behalf of OSS. This program, which currently selects proposals yearly, provides awards of up to \$10K (with a few up to \$40K) to enhance and encourage the participation of space scientists in E/PO activities. The submission deadline for IDEAS proposals is typically in October and is open to any scientist based in the U.S. regardless of whether or not they hold a research grant from NASA OSS. E-mail inquiries about IDEAS may be directed to <IDEAS@stsci.edu>, and any current request for proposals is posted on the World Wide Web at <<http://opposite.stsci.edu/pubinfo/edugroup/ideas.html>>. Inquiries by surface mail may be addressed to:

IDEAS Program, OPO
Space Telescope Science Institute
3700 San Martin Drive
Baltimore, MD 21218

OSS EDUCATION/PUBLIC OUTREACH (E/PO) PROPOSAL COVER PAGE

NRA ID:	NRA Title
Parent Research Proposal	

Principal Investigator (Title and Name)		
Department		
Company/Institution		
Street Address		City/Town
State	Zip/Postal	Country
Telephone	Fax	E-Mail Address
Principal Investigator's Signature		Date

E/PO Proposal Title

Co-Investigator(s) Name	Institution	E-mail

Institutional Endorsement	
Name of Authorizing Official	
Title	
Institution	
Signature	Date

Budget Summary				
	Year 1	Year 2	Years 3 & 4	Total Funding
Amount Requested				